CORRECTED VERSION

(51) International Patent Classification[7]: C12N 15/52, 9/00, C12P 17/08, C12Q 1/68, G0IN 33/50 // (C12P 17/08, C12R 1:32)

(21) International Application Number:
PCT/IB2004/003999

(22) International Filing Date:
15 November 2004 (15.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/519,864   14 November 2003 (14.11.2003)   US

(71) Applicants *(for all designated States except US)*: IN-STITUT PASTEUR [FR/FR]; 28, rue du Docteur Roux, F-75015 Paris (FR). UNIVERSITY OF TENNESSEE [US/US]; 1534 White Avenue, Suite 403, Knoxville, TN 37996-1527 (US). MONASH UNIVERSITY [AU/AU]; Wellington Road, Clayton, Victoria 3168 (AU). AUSTIN UNIVERSITY [AU/AU]; Studley road, Heidelberg, Victoria 3084 (AU). BIOTICA TECHNOLOGY [GB/GB]; Chesterford Research Park, Little Chesterford, Nr Saffron Walden, Essex CB10 IXL (GB).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: STINEAR, Timothy, Paul [AU/FR]; 30, avenue Bourgain, F-92130 Issy les Moulineaux (FR). COLE, Stewart, Thomas [GB/FR]; 23, bis rue Cecile Dinant, F-92140 Clamart (FR). LEAD-LAY, Peter, Francis [GB/GB]; 6 Westberry Court, 6 Westberry Court, Cambridge CB3 9BG (GB). SMALL, Pamela, Long, Claus [US/US]; 2140 Island Home Blvd., Knoxville, TN 37920 (US). DAVIES, John, Keith [AU/AU] ; 20 Clendon Road, Ferntree Gully, Victoria 3156 (AU). JENKIN, Grant, Adam [AU/AU]; 40 Wimba Av., Kew, Victoria 3101 (AU). HAYDOCK, Stephen, Frederick [GB/GB]; 19 Histon road, Cottenham, Cambridge

CB4 8UF (GB). JOHNSON, Paul [AU/AU]; 22 Walker Street, Clifton Hill, Victoria 3068 (AU).

(74) Agents: MARTIN, Jean-Jacques , et al.; Cabinet Regim-beau, 20, Rue de Chazelles, F-75847 Paris Cedex 17 (FR).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *without international search report and to be republished upon receipt of that report*

(48) Date of publication of this corrected version:
16 February 2006

(15) Information about Correction:
see PCT Gazette No. 07/2006 of 16 February 2006, Section π

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: THE MYCOLACTONE LOCUS : AN ASSEMBLY LINE FOR PRODUCING NOVEL POLYKETIDES, WITH THERAPEUTIC AND PROPHYLATIC USES

(57) Abstract: The present invention relates to *Mycobacterium ulceran* virulence plasmid, pMUMOOl and particularly to a cluster of genes carried by this plasmid that encode polyketide synthases (PKSs) and polyketide-modifying enzymes necessary and sufficient for mycolactone biosynthesis. More particularly this invention is directed to novel purified or isolated polypeptides, the polynucleotides encoding such polypeptides, processes for production of such polypeptides, antibodies generated against these polypeptides, the use of such polynucleotides and polypeptides in diagnostic methods, kits, vaccines, therapy and for the production of mycolactone derivatives or novel polyketides by combinatorial synthesis.